

IN THE CLAIMS:

Although the claims are not amended herein, the text of all pending claims is set forth below.

1. (PREVIOUSLY PRESENTED) A pressing device which is used together with a working tool when working of a plate portion is performed, in such a manner as to be moved along a working line in a region in the vicinity of said working line while the surface of said plate portion in the vicinity of said working line is pressed in a plate thickness direction by a rotating roller to prevent a floating of a portion to be worked, wherein a servomotor is used as a driving source for moving said roller to press said roller on said plate portion in the plate thickness direction.

2. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, further comprising means for measuring the position or speed of said roller and means for carrying out feedback control according to a measurement result.

3. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, further comprising a working tool mounting section for mounting the working tool.

4. (PREVIOUSLY PRESENTED) A pressing device which is used together with a working tool when working of a plate portion is performed, in such a manner as to be moved along a working line in a region in the vicinity of said working line while the surface of said plate portion in the vicinity of said working line is pressed in the plate thickness direction to prevent the floating of a portion to be worked, comprising:

a roller for pressing said region in the vicinity of the working line;

a frame for supporting said roller;

a mechanism for linearly moving said roller support frame in the direction such that said roller support frame is brought close to or separated from said portion to be worked; and

a servomotor for driving said linear movement mechanism.

5. (PREVIOUSLY PRESENTED) The pressing device according to claim 4, further comprising means for measuring the position or speed of said roller and means for carrying out feedback control according to the measurement result

6. (PREVIOUSLY PRESENTED) The pressing device according to claim 4, further comprising a working tool mounting section for mounting the working tool.

7. (PREVIOUSLY PRESENTED) A pressing device which is used together with a working tool when working of a plate portion is performed, in such a manner as to be moved along a working line in a region in the vicinity of said working line while the surface of said plate portion in the vicinity of said working line is pressed in the plate thickness direction to prevent the floating of a portion to be worked, comprising:

a roller for pressing said region in the vicinity of the working line;

a frame for supporting said roller;

a mechanism for rotationally moving said roller support frame around a predetermined axis substantially perpendicular to the working advance direction of said pressing device; and

a servomotor for driving said rotational movement mechanism.

8. (PREVIOUSLY PRESENTED) The pressing device according to claim 7, further comprising means for measuring the position or speed of said roller and means for carrying out

feedback control according to the measurement result.

9. (PREVIOUSLY PRESENTED) The pressing device according to claim 7, further comprising a working tool mounting section for mounting the working tool.

10. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, wherein a linear motor is used in place of said servomotor, and said linear motor also serves as said linear movement mechanism.

11. (PREVIOUSLY PRESENTED) The pressing device according to claim 4, wherein a desired pressing force is obtained by controlling the current of said servomotor.

12. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, wherein said working tool mounting section is provided at a position on the fixed side of the movement mechanism of said pressing device.

13. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, wherein said working tool mounting section is provided at a position on the moving side of the movement mechanism of said pressing device.

14. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, further comprising an observer for estimating a pressing force of said roller and means for carrying out force feedback control based on a commanded pressing force and an estimated pressing force estimated by said observer.

15. (PREVIOUSLY PRESENTED) The pressing device according to claim 1, wherein said working is laser beam machining.

16. (PREVIOUSLY PRESENTED) A working robot in which said pressing device described in claim 1, is installed at the distal end of a robot arm.

17. (PREVIOUSLY PRESENTED) The working robot according to claim 16, wherein said servomotor of the pressing device is controlled by a robot controller.

18. (PREVIOUSLY PRESENTED) The working robot according to claim 1, wherein a robot teaching pendant is provided with means capable of inputting at least any one of the position, speed, and pressing force of said roller support frame of the pressing device and the distance between said working tool mounted on said working tool mounting section and said plate portion.

19. (PREVIOUSLY PRESENTED) The working robot according to claim 1, wherein at least any one of the position, speed, and pressing force of said roller support frame of the pressing device and the distance between said working tool mounted on said working tool mounting section and said plate portion is commanded by a robot program command.

20. (PREVIOUSLY PRESENTED) An apparatus to work on a plate, comprising:
a roller; and
a servomotor to drive the roller and press the roller in a thickness direction of the plate.

21. (PREVIOUSLY PRESENTED) The apparatus of claim 20, further comprising:

a welder to weld the plate, wherein the servomotor drives the roller to optimize a relationship between a position of a weld point of the welder and the plate and a position where the plate portion is pressed by the roller.